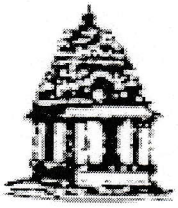

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: VIDYARANYAPURA

*Name of Work: **Modified Estimate for Improvements to Roads and Drains at Simhadri Layout, New Sai Garden Layout and Surrounding in Ward No.11, (Kuvempunagara).***

Job Code: 011-22-000004

Estimated Cost:	***Rs. 100.00 Lakhs***
Sanctioned Cost:	***Rs. 91.85 Lakhs***
Modified Cost:	***Rs.91.83Lakhs***

BRUHAT BANGALORE MAHANAGARA PALIKE

NAMF OF WORK:- Modified Estimate for Improvements to Roads and Drains at Simhadri Layout, New Sai Garden Layout and Surrounding in Ward No.11, (Kuvempunagara).

								Modi Estimate Cost.Rs	9183854.00
Sl No	**Description of work**	**Unit**	**Mesurement**				**Qty**	**Rate**	**Amount**
			No.	**L**	**B**	**D**			
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	New Drain	**Cum**							
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	2	150.00	0.95	0.90	256.50		
	1st Main 2nd Cross Road	Cum	2	132.00	0.95	0.90	225.72		
	New Culvert	**Cum**							
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	7.30	1.40	0.95	9.71		
	Drain Desilt	**Cum**							
	New Sai Garden								
	1st Cross Road	Cum	2	40.50	0.45	0.45	16.40		
	2nd Cross Road	Cum	2	46.00	0.45	0.45	18.63		
	3rd Cross Road	Cum	2	51.00	0.45	0.45	20.66		
	Total						**547.62**	**217.96**	**119359.00**
2	**Removing and refixing** stone slabs of drains and pointing in CM (1:3) (P.No-27,I No-5.33)								
	BS slab of Drain								
	Open Drain (Sides & Bottom)	**Sqm**	Width=Perimeter of Drain in U Shape						
	New Sai Garden								
	1st Cross Road	Sqm	2	40.50	1.35		109.35		
	2nd Cross Road	Sqm	2	46.00	1.35		124.20		
	3rd Cross Road	Sqm	2	51.00	1.35		137.70		
						Total	**371.25**		
	Deduct 20% for Missing/Damaged						**74.25**		
	Consider 80% Qnty for Removing & Refixing						**297.00**		
	Total						**297.00**	**116.85**	**34705.00**
3	Providing granite slabs of selected quality roughly dressed having a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(P.No.27,I.No.5.31.1)								

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Provide 20% new BS Slab for Missing/Damaged	Sqm	From item no.2				**74.25**		
	Total						**74.25**	**779.03**	**57843.00**
4	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180 kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No. 4.3)								
	For Drain								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	2	150.00	0.95	0.15	42.75		
	1st Main 2nd Cross Road	Cum	2	132.00	0.95	0.15	37.62		
	For Culvert								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	7.30	1.40	0.15	1.53		
	Total						**81.90**	**6093.41**	**499069.00**
5	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm (Item No 37.59.2 page no 271)								
	Drain								
	Bottom Raft	**Cum**							
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	2	150.00	0.75	0.15	33.75		
	1st Main 2nd Cross Road	Cum	2	132.00	0.75	0.15	29.70		
	Side Wall								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	4	150.00	0.15	0.60	54.00		
	1st Main 2nd Cross Road	Cum	4	132.00	0.15	0.60	47.52		
						Sub Total	**164.97**		
	Culvert								
	Bottom Raft								
	Simhadri Layout								
	1st Main 1st Cross	Cum	1	7.30	1.20	0.20	1.75		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Side Wall								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	2	7.30	0.20	0.60	1.75		
						Sub Total	**3.50**		
	Total						**168.47**	**8115.38**	**1367231.00**
6	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
	For Drain	Cum	From Item No. 05				164.97		
		kg	Steel assumed 60Kg/Cum of Concrete				9898.20		
		tonne					**9.90**		
	For Culvert	Cum	From Item No. 05				3.50		
		kg	Steel assumed 90 Kg/Cum of Concrete				315.36		
		tonne					**0.32**		
	Total						**10.21**	**95116.82**	**971482.00**
7	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	New Drain Cover slab								
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	2	150.00	0.75		225.00		
	1st Main 2nd Cross Road	Sqm	2	132.00	0.75		198.00		
	Total						**423.00**	**2017.91**	**853576.00**
8	Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge (Data Rate)								
	Culver cover Slab	Sqm							
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	6.40	1.20		7.68		
	Total						**7.68**	**5688.36**	**43687.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
9	KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 5km lead = (I No-19.14,P No-143)								
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	150.00	5.40	0.38	307.80		
	Total						**307.80**	**59.07**	**18182.00**
10	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3 (P.No.146, I.No.19.56)								
	Simhadri Layout	**Sqm**							
	1st Main 2nd Cross Road	Sqm	1	132.00	5.10		673.20		
	New Sai Garden								
	Main Road	Sqm	1	178.00	8.00		1424.00		
	1st Cross Road	Sqm	1	40.50	5.10		206.55		
	2nd Cross Road	Sqm	1	46.00	5.40		248.40		
	3rd Cross Road	Sqm	1	51.00	5.40		275.40		
	Total						**2827.55**	**43.4**	**122716.00**
11	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)								
	for New Road	**Sqm**							
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	150.00	5.40		810.00		
	1st Main 2nd Cross Road	Sqm	1	132.00	5.10		673.20		
	New Sai Garden								
	Main Road	Sqm	1	178.00	8.00		1424.00		
	1st Cross Road	Sqm	1	40.50	5.10		206.55		
	2nd Cross Road	Sqm	1	46.00	5.40		248.40		
	3rd Cross Road	Sqm	1	51.00	5.40		275.40		
	Total						**3637.55**	**6.68**	**24299.00**
12	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	For new Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	150.00	5.40	0.15	121.50		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Total						**121.50**	**2094.47**	**254479.00**
13	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	for New Road	**Cum**							
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	139.00	5.60	0.25	194.60		
	1st Main 2nd Cross Road	Cum	1	132.00	5.60	0.25	184.80		
	New Sai Garden								
	1st Cross Road	Cum	1	40.00	5.15	0.20	41.20		
	2nd Cross Road	Cum	1	50.00	5.10	0.20	51.00		
	3rd Cross Road		1	49.00	5.20	0.20	50.96		
							522.56	**2101.14**	**1097972.00**
	Main Road								
		Cum	1	169.30	8.17	0.30	414.95		
	UGD Cutting Portion								
		Cum	1	169.30	1.00	0.26	43.69		
	Total						**458.64**	**2101.14**	**963672.00**
14	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	139.00	5.60		778.40		
	1st Main 2nd Cross Road	Sqm	1	132.00	5.60		739.20		
							1517.60	**35.61**	**54042.00**
	New Sai Garden								
	1st Cross Road	Sqm	1	43.50	5.00		217.50		
	New Sai Garden								
	Main Road	Sqm	1	169.30	8.17		1382.57		
	Total						**1600.07**	**35.61**	**56979.00**
15	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by smooth wheeled, vibratory & tandem rollers to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.4 % VG-30 Bitumen(P.No.159,I.No.21.11.6).								
	New Road								
	Simhadri Layout								

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	1st Main 1st Cross Road	Cum	1	139.00	5.60	0.05	38.92		
	1st Main 2nd Cross Road	Cum	1	132.00	5.60	0.05	36.96		
							75.88	**7104.72**	**539107.00**
	New Sai Garden								
	1st Cross Road	Cum	1	43.50	5.00	0.05	10.88		
	New Sai Garden								
	Main Road	Cum	1	169.30	8.17	0.05	69.13		
	Total						**80.00**	**7104.72**	**568404.00**
16	KSRRB 500-7. Providing and **applying tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	139.00	5.60		778.40		
	1st Main 2nd Cross Road	Sqm	1	132.00	5.60		739.20		
							1517.60	**13.35**	**20260.00**
	New Sai Garden								
	1st Cross Road	Sqm	1	43.50	5.00		217.50		
	New Sai Garden								
	Main Road	Sqm	1	169.30	8.17		1382.57		
	Total						**1600.07**	**13.35**	**21361.00**
17	KSRRB M500-19. Providing and laying **bituminous concrete** using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-ll (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6)								
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	139.00	5.60	0.04	31.14		
	1st Main 2nd Cross Road	Sqm	1	132.00	5.60	0.04	29.57		
							60.70	**10500.15**	**637402.00**
	New Sai Garden								
	1st Cross Road	Sqm	1	43.50	5.00	0.04	8.70		
	New Sai Garden								
	Main Road	Sqm	1	169.30	8.17	0.04	55.30		
	Total						**64.00**	**10500.15**	**672040.00**
18	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from								

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	2	150.00	0.10		30.00		
	1st Main 2nd Cross Road	Sqm	2	132.00	0.10		26.40		
	New Sai Garden								
	1st Cross Road	Sqm	2	40.00	0.10		8.00		
	New Sai Garden								
	Main Road	Sqm	2	162.50	0.10		32.50		
	Total						**96.90**	**477.43**	**46263.00**
								Grand Total	**9044130.00**
	as per Chief Commissioner order add GST Charges @ 6% of Execution cost								**139724.00**
								Total Amount	**9183854.00**
Rupees Ninety One Lakh(s) Eighty Three Thousand Eight Hundred Fifty Four Only									

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Executive Engineer
Byatarayanapura Division

Technical Sanction
Accorded For RS 9183854/-
Head of A/C P.3075
CER NO : 86 Dt: 14.03.23